



SHARP FACTS

Hepatitis B



What is Hepatitis B?

Hepatitis means "inflammation of the liver." Chronic infection can lead to liver cirrhosis and the destruction of liver cells. Hepatitis B is caused by a virus transmitted through exposure to infected blood, semen, and vaginal fluids. Many people still do not understand that it can be transmitted sexually.

In developing countries hepatitis B infection frequently occurs in infancy and childhood due to perinatal transmission and the use of contaminated needles. In developed countries, hepatitis B is more common in certain subgroups of the population, to include intravenous drug abusers, heterosexuals with multiple sex partners, gay men, staff of hemodialysis centers and others who are routinely exposed to infected blood.

Individual responses to infection can vary greatly. Persons infected with hepatitis B may not experience any adverse symptoms or may require hospitalization for severe liver disease, where treatment is basically supportive (no cure). The person's immune system responds to infection from the virus in one of two ways: by providing lifelong immunity through antibody production or by failing to respond, resulting in chronic infection and potentially life-threatening liver disease. Chronic infection is common when infection occurs during infancy or in persons with compromised immune systems.

Is there a vaccine which can prevent hepatitis B?

For several years a vaccine has been available which is very effective in preventing, although not in treating, hepatitis B. In the U.S., women who receive prenatal care are screened for hepatitis B infection. For women infected with hepatitis B, transmission to their newborns can be prevented by administering hepatitis B vaccine and immune globulin to their infants immediately after birth and continuing the series of three immunizations over the next six months. In infants born to uninfected women, the hepatitis B series is routinely started within the first two months of life.

Adults at risk for exposure to hepatitis B may also receive the hepatitis B vaccine series. Once completed, the vaccine provides highly effective, long-term protection; that is, direct exposure of a vaccinated individual to the virus through sex or blood will not result in infection.

In the past, recipients of blood products were at high risk. Blood donations in this country and other developed countries are now routinely screened and processed to virtually eliminate the risk of transmission through our blood supply system. In addition, people who have been vaccinated are no longer susceptible to hepatitis B through receipt of blood products.

What is the magnitude of the problem?

Chronic hepatitis B is found in up to 0.9% of the U.S. population. There is no reliable cure once infection has occurred. In certain foreign-born and high risk groups the rate of chronic infections may be much higher. The number of new cases of hepatitis B has declined significantly with the advent of effective screening tests and vaccine development in the early 1990s.

How are young adults affected?

Young adults who are sexually active risk exposing themselves to partners who carry this virus. Many young adults were not routinely vaccinated as children and remain unprotected.

SHARP FACTS

Hepatitis B

What is being done to address the problem?

Enough vaccine is now available to vaccinate anyone at risk for exposure to hepatitis B. Physicians and nurses should advise all sexually active persons with more than one long-term sex partner or anyone who is seen for another STD to be vaccinated. The hepatitis B vaccination series is now routinely administered to all active duty personnel.

What still needs to be done?

Programs to provide testing for infection and subsequent vaccination and counseling are still needed in some parts of our U.S. population. High risk groups, to include injection drug users, may be difficult to locate and vaccinate, and cost may discourage some persons at risk from obtaining the vaccine.

How can I protect myself from contracting hepatitis B?

Not having sex is the most effective way to prevent getting an infection. Monogamy is also safe; two people who only have sex with each other are safe if neither partner is infected. People who choose to have sex outside a monogamous relationship but don't know whether their partners carry this virus can protect themselves by receiving the vaccine series. Condoms may also be effective in preventing hepatitis B transmission. Washing the genitals, urinating, or douching after sex does **not** prevent STDs. For more detailed information on strategies to reduce your risk of acquiring STD/HIV see *SHARP Fact* "Choosing Safer Options Reduces Risk" at <http://www-nehc.med.navy.mil/hp/sharp/shrpfact.htm>.

Are there other causes of hepatitis?

Hepatitis can be caused by many different types of hepatitis viruses. Currently vaccines are only available for hepatitis A and B, the most common forms.

Type A is found in human feces and is transmitted from person to person through ingestion, either of contaminated food or water or by direct ingestion of even small fecal particles during sexual activity. For this reason, people who handle food should wear gloves and wash their hands after using the restroom!

Hepatitis C is common among injecting drug users but can probably be transmitted less efficiently through sexual contact. Blood donors are screened for hepatitis C, but there is no vaccine to prevent infection.

In addition to viruses, chemicals may also damage the liver. Alcohol ingestion is the most common cause of non-viral hepatitis. Drinking excessively can lead to cirrhosis or liver cancer.

Where can I get more information?

Your medical care provider should be consulted if you think you may have been exposed to any sexually transmitted disease, including hepatitis B. CDC provides information through their National STD Hotline at (800) 227-8922. For further information regarding your sexual health, visit the Sexual Health and Responsibility Program Home Page at <http://www-nehc.med.navy.mil/hp/sharp>.

This information adapted by the Sexual Health and Responsibility Program (SHARP), Directorate of Health Promotion and Population Health, Navy Environmental Health Center in Norfolk, Virginia from material developed by the Centers for Disease Control and Prevention, National Center for Infectious Diseases, and the American Public Health Association.